

**MOLDING SYSTEM FOR MOLDING MICRO PATTERN STRUCTURE HAVING  
MICRO HEATING ELEMENT AND METHOD FOR FABRICATING MOLD  
INSERT FOR MOLDING MICRO PATTERN STRUCTURE USED THEREIN**

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**Abstract**

A molding system for molding a micro pattern structure includes a mold; a mold insert 6 having a micro pattern, the mold insert 6 being fixed to the mold; and a micro heating element 30 having a micro heater 32 between the mold and the mold insert 6, the micro heater 32 being formed in an integrated manner by using a MEMS process; wherein the 10 amount of Joule's heat produced by the micro heater 32 is controlled by controlling the amount of electricity applied to the micro heater 32 so as to control a temperature of the mold insert 6. A method for fabricating the mold insert 6 for molding the micro pattern structure, the mold insert 6 being heated by a micro heater 32, includes the steps of: coating a photoresist on a back side of either the mold insert 6 or a plate 40 fixed onto the mold insert 15 6; patterning the photoresist by removing a part of the photoresist corresponding to the micro heater 32 using a lithography process; coating a material for forming the micro heater 32; and removing the residual photoresist.